

## REMARKS

Claims 1-36 are pending in the application. Claims 25-36 have been withdrawn from consideration by the Examiner as being directed to a non-elected invention. Claims 1-24 have been rejected.

Additionally, entry and consideration of the following remarks is respectfully requested.

I. The 37 C.F.R. §1.142 (b) Restriction:

Claims 25-36 have been withdrawn from consideration by the Examiner as being directed to a non-elected invention. Claims 25, 28 and 29 are directed to plasticizers which are liquid; claims 26, 27, 30, 31, 35 and 36 recite the Markush group of plasticizers in claim 5; and claims 32-34 require a mixture of plasticizers. The Examiner contends that claims 25-36 are directed to a species which is distinct from the invention originally claimed.

The requirement for election is respectfully traversed because new claims to two distinct species have not been presented here.

If, after an office action on an application, the applicant presents claims directed to an invention distinct from and independent of the invention previously claimed, the applicant will be required to restrict the claims to the invention previously claimed if the amendment is entered, subject to reconsideration and review as provided in §§1.143 and 1.144. See 37 CFR §1.145

Claims 25-36 are not directed to an invention distinct from and independent of the invention previously claimed. Original claims 1-24 cover new claims 25-36. Claims 25-36 are directed to the plasticizer (B) of original claims 1-24. As such, new claims 25-36 are a sub-set of the original claims. Specifically, claims 25-36 act to further limit the plasticizer (B). For example, claims 25, 28 and 29 require that the plasticizer (B) is liquid and claims 27 and 31 require that the plasticizer (B) is a terpolymer of (a) an olefin, (b) a comonomer selected from acrylic acids or esters, methacrylic acids and esters, and vinyl acetates, and (c) carbon monoxide. Support for claims 25-36 can be found in the specification.

Therefore, Applicants respectfully traverse Examiner's withdrawal of claims 25-36, and request reinstatement and allowance of claims 25-36.

II. The 35 U.S.C. §112, Second Paragraph Rejection:

Claims 1-24 have been rejected under 35 U.S.C. §112, second paragraph, as indefinite. Specifically, the Examiner contends that the phrase "a major amount" is vague and indefinite, and it is not clear as to the scope of the limitation as used in the claims.

Applicants submit that this term is not indefinite, but is a well recognized and often used term within the patented art. The term means that the material is present in an amount greater than 50%. A person of ordinary skill in the art upon reading Applicants' specification would be able to determine what is meant by the term "a major amount". The term "a major amount" has been used extensively in patent claims. Additionally, over a thousand U.S. patents have issued with the term "a major amount". For example, U.S. Patent Nos. 6,656,739 and 6,660,695 both utilize the term "a major amount" in the claims and do not specifically define the term in the specification. However, a person of ordinary skill in the art upon reading the disclosures would be able to determine what is meant by the term "a major amount". Applicants submit that the U.S. Patent and Trademark Office has recognized this as a definite term.

In view of the above, Applicants believe the rejection of claim 1 to be unfounded. Accordingly, withdrawal of the rejection of claim 1 is believed due and is respectfully requested.

III. The Art Rejections:

A. Claims 1-14 have been rejected under 35 USC §102(b) over Kushida et al. (US Patent No. 5,344,864).

Kushida et al. teaches a thermoplastic elastomer composition of a polyvinyl chloride-nitrile rubber system having excellent processability, high tensile strength and low compression set. The composition is useful as a substitute for vulcanized rubber.

The Examiner contends that Kushida teaches a PVC thermoplastic elastomer composition, which comprises 100 parts by weight of a vinyl chloride resin, from 20 to 300 parts by weight of a nitrile rubber, from 25 to 200 parts by weight of a plasticizer, and from 10 to 200 parts by weight of a filler and a curing agent for the rubber. The Examiner also contends that Kushida teaches that the PVC thermoplastic elastomer composition is used in applications such as films, sheets, etc.

Contrary to the Examiner's contention, Kushida teaches that the addition of a rubber provides a moldable product which is useful as an alternative to vulcanized rubber. Specifically, Kushida teaches the preparation of molded products such as those used in glass channel products. As presently claimed, Applicants' claim 1 is directed to a vinyl halide film which comprises (A) a vinyl halide resin, (B) a non-halogenated polymeric plasticizer and (C) a second plasticizer, wherein the vinyl halide polymer (A) comprises a major amount of the polymers of the film and wherein the film has an elongation of at least 50% and a thickness from about 1 to about 20 mils. Kushida does not teach or suggest preparing a vinyl halide film from their polyvinyl chloride elastomeric compositions.

The only mention of film in Kushida is a general statement of the uses of a plasticized vinyl chloride resin. In the background, Kushida states that vinyl chloride resins incorporated with a plasticizer are used for many applications such as films, sheets, tubes or containers. This general statement is then followed by a discussion of the problems associated with the addition of a plasticizer, such as strong creep tendency and large compression set. (Col. 1, lines 25-45). Kushida goes on to state that the addition of a rubber provides a moldable product which exhibits low compression set and high mechanical strength such that it is useful as an alternative to vulcanized rubber. Kushida does not disclose the use of its composition in a film. In fact, Kushida states that its composition is directed to various applications for which conventional vulcanized rubber is employed, such as packings, gaskets, sheets, hoses, tubes,

rolls, grips, grommets, glass channels, weather strips, mud-guards, dust boots, various containers and cushions. (Col. 7, lines 1-12).

Additionally, Kushida does not disclose a film having an elongation greater than 50%. The Examiner contends that Table 1 shows an elongation percentage of the composite being greater than 50%. The Table 1 of Kushida (Col. 2, lines 5-13) discloses prior art attempts at reducing the compression set via the use of plasticized vinyl chloride resin in combination with a partially cross-linked NBR. The results listed in the table show that reducing the compression set causes tensile strength, elongation and tear strength to deteriorate. Based on the results in the table, Kushida does not disclose a PVC thermoplastic elastomer composition which exhibits an elongation of at least 50%.

Kushida does not disclose a film having a thickness from about 1 to about 20 mils. Kushida does not teach or suggest preparing a vinyl halide film from their polyvinyl chloride elastomeric compositions. Since Kushida does not disclose the use of its composition in a film, it also does not disclose a thickness for the film. The thickness disclosed in the present application would also not be known by one of ordinary skill in the art after reading Kushida's disclosure.

Therefore, Applicants submit that claims 1-14 are novel over Kushida et al. Accordingly, withdrawal of the rejection of claims 1-14 is believed due and is respectfully requested.

B. Claims 22-24 have been rejected under 35 U.S.C. §102(a) over Breton et al. (U.S. Patent No. 6,054,524).

The Examiner states that Breton et al. teaches a plastisol composition which comprises polyvinyl chloride, an optional primary plasticizer, a stabilizer, a paraffinic or aliphatic solvent or secondary plasticizer and powdered crosslinked nitrile rubber. The Examiner also contends that Breton expressly teaches the use of an aromatic solvent in plastisol compositions.

Contrary to the Examiner's contention, Breton teaches that the plastisol compositions have a high rubber content. Breton describes the problems associated with adding rubbers to plastisols and the resulting increase in

viscosity of the combination. (Col. 1, lines 31-42). Breton also teaches that the addition of an aliphatic solvent reduces the viscosity of crosslinked nitrile rubber containing plastisol compositions. These plastisol compositions containing aliphatic solvents can also be made utilizing a combination of a primary and/or secondary plasticizer, wherein primary aromatic plasticizers are normally preferred. (Col. 2, lines 1-7). Thus, the plastisol composition of Breton must include an aliphatic solvent but may also include an aromatic plasticizer. Whereas, Applicants' claimed invention requires an aromatic solvent, not an aliphatic solvent. Applicants' claim 22 is directed to a plastisol composition which contains (A) a vinyl halide polymer, (B) a non-halogenated polymeric plasticizer, (C) a second plasticizer, and (D) an aromatic solvent.

There are no teachings in Breton that would lead one of ordinary skill in the art to modify Breton to use an aromatic solvent in place of the aliphatic solvent. The use of an aromatic solvent would not have the same effect as the use of an aliphatic solvent on the plastisol composition. Breton expressly teaches that the aliphatic solvent unexpectedly solved the problem of viscosity increase of plastisols with the addition of rubber. Thus, one of ordinary skill in the art would not be motivated to substitute an aliphatic solvent for an aromatic solvent in order to have the same viscosity decreasing effect.

Further, the use of an aromatic plasticizer does not have the same effect as an aromatic solvent on the plastisol composition. It appears that the Examiner is confusing the meaning of the words "plasticizer" and "solvent". Plasticizer refers to any of various substances added to plastics or other materials to make or keep them soft or pliable (*n.*). *The American Heritage Dictionary of the English Language, Fourth Edition, Copyright 2000 by Houghton Mifflin Company.* Whereas, solvent refers to the capability of dissolving another substance (*adj.*); or a substance in which another substance is dissolved, forming a solution (*n.*). *The American Heritage Dictionary of the English Language, Fourth Edition, Copyright 2000 by Houghton Mifflin Company.* Thus, Breton does not disclose the use of an aromatic solvent.

Therefore, Applicants submit that claims 22-24 are novel over Breton et al. Accordingly, withdrawal of the rejection of claims 22-24 is believed due and is respectfully requested.

C. Claims 15-21 have been rejected under 35 U.S.C. §103(a) over Kushida et al. (U.S. Patent No. 5,344,864) in view of Hager et al. (US Patent No. 5,198,301).

The Examiner contends that although Kushida lacks the express teaching of forming an adhesive based article on a plasticized polyvinyl chloride film, it is believed that forming an adhesive tape based on a plasticized polyvinyl chloride substance is old and well known. Alternatively, the Examiner has noted that Hager's invention is directed to highly flexible and conformable base films. The Examiner is of the opinion that in view of the teachings of Hager, it is known that the plasticized polyvinyl chloride films are used in numerous applications such as adhesive tapes, and it would be obvious for one skilled in the art to use Kushida's plasticized PVC film as a backing to form an adhesive film. The Examiner has suggested that the motivation to make the article comes from the desire to obtain a highly flexible adhesive tape.

Claims 15-21 are directed to adhesive articles comprising a pressure sensitive adhesive layer having a first and second surface and a vinyl halide film adhered to the first surface of the adhesive layer. The vinyl halide film comprises (A) a vinyl halide polymer, (B) a non-halogenated polymeric plasticizer and (C) a second plasticizer wherein the film has an elongation of at least about 50%.

As described above, Kushida does not teach or suggest the use of its thermoplastic elastomer composition in a film. In contrast, Kushida teaches a thermoplastic elastomer composition which is useful as a substitute for vulcanized rubber. Thus, even if forming an adhesive tape based on a plasticized polyvinyl chloride substance is old and well known, one of ordinary skill in the art would not be motivated to use the composition of Kushida to make a film, much less a film containing an adhesive layer.

Kushida only offers a generalized statement describing the applications of vinyl chloride resins which incorporate a plasticizer. This general statement is followed by a discussion of the problems of plasticized vinyl chloride resins, such as creep tendencies and large compression sets. Kushida then teaches that the addition of a rubber provides a moldable product which is useful for various applications for which conventional vulcanized rubber is employed, such as gaskets, hoses, tubes, grommets, glass channels and cushions. (Col. 7, lines 1-13). The generalized statement about plasticized vinyl chloride resins in the background of the patent does not provide motivation for one of ordinary skill in the art to use the composition of Kushida to make a film.

Alternatively, Hager teaches films which are made from ionomeric polymer resins with 2 to 40% by weight of filler. Hager discloses that ionomeric polymer resins are preferred for adhesive applications because the films tend to remain in place once applied to uneven surfaces, and they contain no migrating plasticizers or other leachable additives. Thus, the teachings of Hager do not make up for the deficiencies of Kushida. One of ordinary skill in the art would not be motivated by Hager to provide a plasticized polyvinyl chloride film with an adhesive layer, nor is there a reasonable expectation of success for making that combination.

In fact, Hager teaches away from the use of polyvinyl chloride films. Polyvinyl chloride films are discussed in the background of Hager. Specifically, Hager provides that polyvinyl chloride films have been used for various applications, such as adhesive tapes, automotive pinstripes, dust covers and the like. However, PVC resin has to be highly plasticized to give it flexibility for these stated uses. Due to the addition of the plasticizers, the film tends to shrink causing shear stress and removal of the product from the substrate. (Col. 1, lines 12-30). Hager goes on to teach that the use of ionomeric polymer resins corrects the problems caused by the use of PVC resins. Specifically, ionomeric polymer resins are flexible and conform to irregular surfaces when produced in film form, and contain no migrating plasticizers or other leachable additives. (Col. 2, lines 7-22).

Thus, Hager teaches away from polyvinyl chloride films by teaching that ionomeric polymer resins can be used as an alternative to polyvinyl chloride films. There is no motivation or suggestion within Hager that would lead one of ordinary skill in the art to make an adhesive article with a vinyl chloride film made from the Kushida composition. Hager specifically describes the shortcomings of polyvinyl chloride films and the benefits of using an ionomeric polymer resin to replace such PVC films. A person of ordinary skill in the art upon reading Hager would not have the motivation to utilize a PVC resin in combination with an adhesive article, nor would they have a reasonable expectation of success for the use of the Kushida composition to make a film and use it in an adhesive article.

Accordingly, Applicants submit that claims 15-21 are not rendered obvious by the combination of Kushida in view of Hager. Accordingly, withdrawal of the rejection of claims 15-21 is believed due and is respectfully requested.



### CONCLUSION


In view of the foregoing remarks, Applicants respectfully request allowance of claims 1-36.

Should the Examiner believe that a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 18-0988 under Attorney Docket No. **AVERP2997USA**.

Respectfully submitted,

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